calculate the charge in said memory, the re-writable data carrier being attached to the container of the dish or the drink, and

a voltage generator circuit to provide power to said memory and said communication control logic in response to electromotive force received from said antenna,

the communication control logic causing the re-writable data carrier to enter a state of waiting a predetermined period to answer an inquiry from reading means after communicating with the reading means.

REMARKS

INTRODUCTION:

In accordance with the foregoing, claim 23 has been canceled without prejudice or disclaimer and claims 1, 2, 5, 10-12, 14-17, 20, 21, 22 and 24 have been amended. Claims 1-22 and 24-25 are pending and under consideration.

REJECTION UNDER 35 U.S.C. §103(a):

Claims 1-3, 5-10, 12-25 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,522,509 to Shimamura et al. in view of U.S. Patent 6,101,375 to Tuttle et al.

Independent claim 1 recites "each of the re-writable data carriers including a communication control logic to cause each of the re-writable data carriers to enter a state of waiting a predetermined period to answer an inquiry from the reading means after communicating with the reading means." This feature is supported, for example, from page 11, line 25 to page 12, line 4, page 14, lines 5-8, and Fig. 5 of the present application.

As acknowledged by the Examiner at page 3, lines 9-10 of the Office Action, Shimamura et al. does not disclose that each of the data carriers enters a state of waiting to answer an inquiry from the reading means after communicating with the reading means.

The Examiner relies upon Tuttle et al. as disclosing this feature. However, this reference discloses a waiting period which occurs before receiving a signal. Specifically, the waiting period (step 4) of Tuttle et al. is caused by the interrogator 300 waiting to receive a signal from the RFID tag 200. The interrogator 300 is waiting to receive an external signal before responding. Thus, the waiting period occurs before receiving the external signal. In contrast, the claimed waiting period occurs after communicating with the receiving means. Futhermore, it is noted that claim 1 recites a communication control logic, whereas Tuttle et al. discloses an interrogator and an RFID tag.

According to the claimed communication control, a reader/writer can communicate with all of a plurality of data carriers located within the communciable area of the reader/writer, in a reliable manner which is free from interference between signals. However, Tuttle et al. does not realize this advantage.

Furthermore, it is respectfully submitted that the Examiner' combination is based upon impermissible hindsight. Shimamura et al. describes resonant tags, which comprise inductors and capacitors only. In contrast, the system of Tuttle et al. includes a power level control unit 31 to set the transmitter of the interrogator to a minumum level. Thus, the resonant tags of Shimamura et al. are not interchangeable with the RFID tags of Tuttle et al. Therefore, it would not have been obvious to one of ordinary skill in the art to combine the teachings of these references.

Accordingly, withdrawal of the rejection of claim 1 is requested.

Independent claim 2 recites "the re-writable data carriers including a communication control logic to cause each of the re-writable data carriers to enter a state of waiting a predetermined period to answer an inquiry from the writing means after communicating with the writing means." Accordingly, independent claim 2, and claim 3 depending therefrom, are patentable over the Examiner's cited references.

Independent claim 5 recites " each of the re-writable data carriers including a communication control logic to cause each of the re-writable data carriers to enter a state of waiting a predetermined period to answer an inquiry from the reading means after communicating with the reading means and calculating means for calculating the charge using the read data." Accordingly, independent claim 5, and claims 6-9 depending therefrom, are patentable over the Examiner's cited references.

Independent claim 10 recites "means for holding the dish or drink and a re-writable data

means being attached to the container of the dish or the drink and including a communication control logic to cause the re-writable data carrier means to enter a state of waiting a predetermined period to answer an inquiry from the reading means after communicating with the reading means." Accordingly, independent claim 10 is patentable over the Examiner's cited references.

Independent claim 12 recites " each of the re-writable data carriers including a communication control logic to cause each of the re-writable data carriers to enter a state of waiting a predetermined period to answer an inquiry from the reading means after communicating with the reading means." Accordingly, independent claim 12, and claim 13 depending therefrom, are patentable over the Examiner's cited references.

Independent claim 14 recites " each of the re-writable data carriers including a communication control logic to cause each of the re-writable data carriers to enter a state of waiting a predetermined period to answer an inquiry from a reading means after communicating with the reading means." Accordingly, independent claim 14 is patentable over the Examiner's cited references.

Independent claim 15 recites " each of the re-writable data carriers including a communication control logic to cause each of the re-writable data carriers to enter a period of waiting a predetermined period to answer an inquiry from a reading means after communicating with the reading means." Accordingly, independent claim 15 is patentable over the Examiner's cited references.

Independent claim 16 recites " each of the re-writable data carriers including a communication control logic to cause each of the re-writable data carriers to enter a state of waiting a predetermined period after to answer an inquiry from a reading means after communicating with a reading means." Accordingly, independent claim 16 is patentable over the Examiner's cited references.

Independent claim 17 recites " each of the re-writable data carriers including a communication control logic to cause each of the re-writable data carriers to enter a state of waiting a predetermined period to answer an inquiry from the reading unit after communicating with the reading unit." Accordingly, independent claim 17, and claims 18-19 depending therfrom, are patentable over the Examiner's cited references.

Independent claim 20 recites " the re-writable data carrier including a communication control logic which causes the re-writable data carrier to enter a state of waiting a

predetermined period to answer an inquiry from the reading means after communicating with the reading means." Accordingly, independent claim 20, and claims 21-22 depending therefrom, are patentable over the Examiner's cited references.

Independent claim 24 recites " the communication control logic causing the re-writable data carrier to enter a state of waiting a predetermined period to answer an inquiry from reading means after communicating with the reading means." Accordingly, independent claim 24, and claim 25 depending therefrom, are patentable over the Examiner's cited references.

Claim 4 was rejected under 35 U.S.C. §103(a) as being unpatentable over Shimamura et al. and Tuttle et al, and further in view of U.S. Patent 3,836,755 to Ehrat.

Claim 4 depends from claim 1 and is therefore distinguishable from Shimamura et al. and Tuttle et al. for at least the above reasons. Ehrat et al. does not overcome the deficiencies in Shimamura et al. and Tuttle et al. and is not relied upon by the Examiner as such. Instead, the Examiner relies upon this reference as disclosing a self service shop including a measuring means. Accordingly, withdrawal of the rejection of claim 4 is requested.

Claim 11 was rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent 5,478,989 to Shepley.

Independent claim 11 recites " each of the re-writable data carriers including a communication control logic to cause each of the re-writable data carriers to enter a state of waiting a predetermined period to answer an inquiry from the reading means after communicating with the reading means." It is respectfully submitted that Shepley does not disclose this feature, and it is noted that the Examiner has not specificed portions of this reference which disclose this feature. Accordingly, claim 11 is patentable over the Examiner's cited references for at least the above reasons.

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge

the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: _____ By: _____
Michael J. Badagliacca
Registration No. 39,099

700 Eleventh Street, NW, Suite 500
Washington, D.C. 20001
(202) 434-1500

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Please **AMEND** claims 1, 2, 5, 10-12, 14-17, 20, 21, 22 and 24 in accordance with the following:

1. (FIVE TIMES AMENDED) A charging system for automatically calculating a charge for a dish or drink selected by a customer, comprising:

writing means for writing data in at least two re-writable data carriers, each of the re-writable data carriers being attached to a container of a dish or drink;

reading means for reading data in a non-contact state from the re-writable data carriers, each of the re-writable data carriers [entering] including a communication control logic to cause each of the re-writable data carriers to enter a state of waiting a predetermined period to answer an inquiry from the reading means after communicating with the reading means; and

calculating means for calculating the charge using the read data and displaying the charge.

2. (FIVE TIMES AMENDED) A charging system for automatically calculating a charge for a dish or drink selected by a customer, comprising:

input means for inputting data to be used to calculate a charge; and

writing means for writing the data in at least two re-writable data carriers each of which is attached to a container of a dish or drink and each of the re-writable data carriers [entering] including a communication control logic to cause each of the re-writable data carriers to enter a state of waiting a predetermined period to answer an inquiry from the writing means after communicating with the writing means.

5. (FIVE TIMES AMENDED) A charging system for automatically calculating a

charge for a dish and drink selected by a customer, comprising:

reading means for reading data in a non-contact state from at least two re-writable data carriers attached to a container of one or more dishes or drinks selected by the customer, each of the re-writable data carriers [entering] including a communication control logic to cause each of the re-writable data carriers to enter a state of waiting a predetermined period to answer an inquiry from the reading means after communicating with the reading means, and

calculating means for calculating the charge using the read data.

10. (FIVE TIMES AMENDED) A container used in connection with reading means for reading data for an automatic calculation of a charge of a dish or drink selected by a customer, comprising:

means for holding the dish or drink; and

[at least two] a re-writable data carrier means for [selectively] recording data to be used to calculate the charge, [each of] the re-writable data carrier means being attached to [a] the container of the dish or the drink and [entering] including a communication control logic to cause the re-writable data carrier means to enter a state of waiting a predetermined period to answer an inquiry from the reading means after communicating with the reading means.

11. (FIVE TIMES AMENDED) A calorie calculating system for automatically calculating calories of a dish or drink selected by a customer, comprising:

reading means for reading data in a non-contact state from at least two re-writable data carriers, each of the re-writable data carriers being attached to a container of one or more dishes or drinks selected by the customer, each of the re-writable data carriers [entering] including a communication control logic to cause each of the re-writable data carriers to enter a state of waiting a predetermined period to answer an inquiry from the reading means after communicating with the reading means; and

calculating means for calculating calories of the one or more dishes or drinks using read data and displaying the calories.

12. (FIVE TIMES AMENDED) A charging system for automatically calculating a charge for goods selected by a customer, comprising:

reading means for reading data in a non-contact state from at least two re-writable data carriers, each of the re-writable data carriers being attached to a container of one or more items of goods selected by the customer, each of the re-writable data carriers [entering] including a communication control logic to cause each of the re-writable data carriers to enter a state of waiting a predetermined period to answer an inquiry from the reading means after communicating with the reading means; and

calculating means for calculating the charge for the one or more items of goods using read data and displaying the charge.

14. (FOUR TIMES AMENDED) A computer-readable recording medium encoded with a program for controlling a computer, the program comprising:

inputting data to be used to calculate a charge for a dish or drink selected by a customer; and

writing the data in at least two re-writable data carriers, each of the re-writable data carriers being attached to a container of the dish or drink, each of the re-writable data carriers [entering] including a communication control logic to cause each of the re-writable data carriers to enter a state of waiting a predetermined period to answer an inquiry from a reading means after communicating with the reading means.

15. (FIVE TIMES AMENDED) A computer-readable recording medium encoded with a program for controlling a computer, the program comprising:

reading data in a non-contact state from at least two re-writable data carriers, each of the re-writable data carriers being attached to a container of one or more dishes or drinks selected by a customer, each of the re-writable data carriers [entering] including a communication control logic to cause each of the re-writable data carriers to enter a period of waiting a predetermined period to answer an inquiry from a reading means after communicating with the reading means;

calculating a charge for the one or more dishes or drinks using the read data; and

displaying the charge.

16. (FIVE TIMES AMENDED) A charging method for automatically calculating a charge for a dish or drink selected by a customer, comprising:

writing data in at least two re-writable data carriers, each of the re-writable data carriers being attached to a container of a dish or drink;

reading data in a non-contact state from the data carriers of one or more dishes or drinks selected by the customer, each of the re-writable data carriers [entering] including a communication control logic to cause each of the re-writable data carriers to enter a state of waiting a predetermined period after to answer an inquiry from a reading means after communicating with a reading means;

calculating said charge using read data; and

displaying said charge.

17. (THREE TIMES AMENDED) A charging system for automatically calculating a charge for a dish or drink selected by a customer, comprising:

a writing unit writing data in at least two re-writable data carriers, each of the re-writable data carriers being formed as part of a container of a dish or drink;

a reading unit reading data in a non-contact state from the re-writable data carriers,

each of the re-writable data carriers [entering] including a communication control logic to cause each of the re-writable data carriers to enter a state of waiting a predetermined period to answer an inquiry from the reading unit after communicating with the reading unit, and

a calculating unit calculating the charge using the read data and displaying the charge.

20. (THREE TIMES AMENDED) A container used in connection with reading means for reading data for automatic calculation of a charge of a dish or drink selected by a customer, comprising:

tableware to hold the dish or drink; and

[at least two] a re-writable data [carriers] carrier to record data to be used to calculate the charge, [each of] the re-writable data [carriers] carrier being attached to [a] the container [of the dish or drink], and [each of] the re-writable data [carriers entering] carrier including a communication control logic which causes the re-writable data carrier to enter a state of waiting a predetermined period to answer an inquiry from the reading means after communicating with the reading means.

21. (TWICE AMENDED) The container used in an automatic calculation of a charge of a dish or drink according to claim 20, wherein [each of] said [selectively] re-writable data [carriers] carrier further comprises:

an antenna;

a voltage generator circuit to provide power to said data carrier in response to electromotive force received from the antenna; and

a memory unit to record the data to be used to calculate the charge.

22. (TWICE AMENDED) The container used in an automatic calculation of a charge of a dish or drink according to claim 21, wherein [each of] said [selectively] re-writable data

[carriers] carrier further comprises:

a modulator/demodulator to communicate modulated data between the antenna with the memory unit.

24. (FOUR TIMES AMENDED) [The] A container used in an automatic calculation of a charge of a dish or drink comprising:

an antenna;

a memory;

a communication control logic to record data in [at least two] a re-writable data [carriers] carrier to be used to calculate the charge in said memory, [each of] the re-writable data [carriers] carrier being attached to [a] the container of the dish or the drink[,]; and

a voltage generator circuit to provide power to said memory and said communication control logic in response to electromotive force received from said antenna,

[each of] the communication control logic causing the re-writable data [carriers entering] carrier to enter a state of waiting a predetermined period to answer an inquiry from [the communication control logic] reading means after communicating with the [communication control logic] reading means.